

CLAIMS

1. A DNA construct, wherein a mammalian β -actin promoter is operably linked to an enhancer.

5 2. The DNA construct of claim 1, wherein the enhancer is Cytomegalovirus (CMV).

3. The DNA construct of claim 1, wherein the enhancer is Woodchuck Hepatitis Virus Posttranscriptional Regulatory Element (WPRE).

10 4. The DNA construct of any one of claims 1 to 3, wherein the mammalian β -actin promoter is a rodent β -actin promoter.

15 5. The DNA construct of claim 2, wherein the CMV enhancer comprises the nucleotide sequence shown in SEQ ID NO: 4 and the mammalian β -actin promoter comprises the nucleotide sequence shown in SEQ ID NO: 2.

20 6. The DNA construct of claim 3, wherein the Woodchuck Hepatitis Virus Posttranscriptional Regulatory Element (WPRE) comprises the nucleotide sequence shown in SEQ ID NO: 3 and the mammalian β -actin promoter comprises the nucleotide sequence shown in SEQ ID NO: 2.

7. A vector comprising the DNA construct of any one of claims 1 to 6.

25 8. The vector of claim 7, comprising a DNA having a desired DNA operably linked downstream of the mammalian β -actin promoter.

9. The vector of claim 7 or 8, comprising and capable of expressing a DNA encoding a transactivator.

30 10. The vector of claim 9, wherein the transactivator is an oncogene product.

11. The vector of claim 10, wherein the oncogene product is Ras.

35 12. The vector of any one of claims 8 to 11, wherein the desired DNA encodes a desired protein.

13. A cell comprising the vector of any one of claims 8 to 12.
14. A cell comprising the vector of any one of claims 8 to 12, wherein the oncogene is
5 activated.
15. The cell of claim 14, into which the vector comprising the gene encoding the
transactivator is introduced.
- 10 16. The cell of claim 14, which is a transformed cell.
17. The cell of any one of claims 13 to 16, which is a mammalian cell.
18. The cell of claim 17, which is a rodent cell.
- 15 19. The cell of any one of claims 13 to 18, which is derived from the same animal order as
that from which the β -actin promoter is derived.
- 20 20. The cell of claim 19, which is derived from the same animal species as that from which
the β -actin promoter is derived.
21. A non-human transgenic animal into which the vector according to any one of claims 8
to 12 has been introduced.
- 25 22. A totipotent cell into which the vector of any one of claims 8 to 12 is introduced.
23. A method for producing a desired protein, which comprises culturing a cell comprising
the vector of claim 12; and harvesting the expressed protein from the cultured cell or medium.
- 30 24. The method of claim 23, which comprises adding a transactivator to the medium.
- 25 25. A method for expressing a desired DNA in a host cell, which comprises introducing the
vector of any one of claims 8 to 12 into the host cell derived from the same animal order as
that from which the β -actin promoter in the vector is derived.
- 35 26. A method for expressing a desired DNA in a host cell, which comprises introducing the

vector of any one of claims 8 to 12 into a host cell derived from the same animal species as that from which the β -actin promoter in the vector is derived.

27. A method for expressing a desired DNA in a host cell, which comprises introducing the vector of claim 8 and a vector comprising and capable of expressing a DNA encoding a transactivator into a host cell which is derived from the same species as that from which the β -actin promoter in the vector of claim 8 is derived.

28. The method of any one of claims 25 to 27, wherein the host cell is a mammalian cell.

29. The method of any one of claims 25 to 27, wherein the host cell is a rodent cell.

30. A method for increasing the expression level of a desired DNA, which comprises inserting upstream of the desired DNA a β -actin promoter derived from the same animal species as that from the host cell is derived.

31. A method for increasing the expression level of a desired DNA, which comprises inserting upstream of the desired DNA a β -actin promoter derived from the same animal species as that from the host cell is derived.

32. The method of claim 30 or 31, which further comprises inserting an enhancer.

33. The method of claim 32, wherein the enhancer is Woodchuck Hepatitis Virus Posttranscriptional Regulatory Element (WPRE).

34. The method of claim 32, wherein the enhancer is a CMV enhancer.

35. The method of any one of claims 30 to 34, which comprises inserting a gene encoding a transactivator gene.

36. The method of any one of claims 30 to 35, wherein the host cell is a mammalian cell.

37. The method of any one of claims 30 to 35, wherein the host cell is a rodent cell.